

Monthly Progress
July 2018 Progress Report
Crab Orchard National Wildlife Refuge
AUS OU RI/FS

Actions Taken to Comply with Consent Order

During the month of July 2018, activities of significance included:

1. Preparation of AOC mandated reports.
2. FWS circulated clarifications to the Agencies regarding the items discussed during the July 9th conference call held among FWS, USGS and Shannon & Wilson (S&W) that was summarized in the June Progress Report on July 11th, as follows:
 - Ecological risk – S&W will continue to use the existing technical memoranda related to ecological risk management based on the BERA for preparing the draft FS.
 - Scale of Remedy Areas - The Agencies requested information on the methods that determined the groundwater and soil remedy area boundaries. Additional discussion on those methods in the draft FS Report will be developed for further background for understanding the +50/-30% acceptable range for cost estimates.
 - Quantifiable Details for Comparative Analysis - Low-medium-high remedial alternative categories may be insufficient to quantify how each alternative is ranked against the nine National Contingency Plan (NCP) criteria. Because S&W is preparing the draft FS Report, FWS agreed that S&W will continue with the current format. However, the draft FS Report may be revised after the October draft submittal to address this issue. At that time, FWS and S&W will develop a format to expand the comparative analysis to include additional detail.
 - Copper Pond - FWS is considering a time-critical removal action (TCRA) as an interim measure to address surface water quality criteria exceedances for copper in surface water at the AUS 0A8S pond remedy area. The Agency is evaluating if clean surface water inflow can be diverted to nearby drainage ditches to prevent overtopping at the pond following storm events. However, the FS remedy planning process will continue for the pond area. Any interim measure will be designed to have no substantial effect on the final remedial action.
3. Based on the above FWS feedback, along with the Agencies' review comments to the FS Pilot, further detail is needed in the draft FS report narratives for each remedy area. These details in turn have required further cost revisions to the RACER® estimates compared to those originally prepared for the Comparative Analysis of Alternatives (CAA) Memorandum. To expedite the draft FS report document preparation, S&W attempted to purchase a second license on July 19th.¹ AECOM (the owner of the software) responded that all commercial sales of the program had been suspended. However, AECOM added that exceptions are considered for contractors for the military services and the Departments of Energy and Interior. Because the AUS OU is administered by FWS in consultation with the other Agencies, FWS submitted a contractor verification form to AECOM on S&W's behalf on July 24th. AECOM then provided a second license to S&W on August 1st.

¹ S&W purchased a single license for the RACER® program in 2016. The program is proprietary to AECOM, requiring that individual licenses are restricted to single computers.

4. S&W and FWS convened a conference call on August 7th to discuss in further detail the definition of remedy area boundaries (Item 2 second bullet above). This discussion addressed the need to provide an evaluation of the sensitivity to remedial cost estimates based on the dimensions of the remedy areas in the draft FS report. The parties agreed that this evaluation will require further refinement before circulating the draft to the other Agencies. A second discussion topic included preparation of the natural attenuation (NA) Study report. As described in the previous Progress Report (June 2018), S&W and USGS will confer on the preparation of the report, following submittal of the draft FS report later this fall.
5. S&W continued preparation of the draft FS Report.

Results of Sampling and Tests

The initial NA Study sampling event was performed the week of November 6, 2017, followed by the second event the week of January 1, 2018. The TCE cometabolism/ ¹⁴C samples were collected on March 21st, completing the field requirements for the NA Study. Preliminary results for a portion of the November event were received on January 17th, along with a second preliminary data set from the January event on March 8th. Preliminary gene results were received on April 23rd, and preliminary microorganism results were received on May 16th. Preliminary TCE cometabolism results, as well as all validated data for all results, remain outstanding.

Work Planned for the Next Two Months

During the months of August and September 2018 planned activities include:

1. S&W will participate in discussions with USGS regarding the NA Study report.
2. S&W will continue preparation of the draft FS report.

Problems Encountered

None.